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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,626	12/17/2001	Tohru Takahashi	217190US2S	7544

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EXAMINER

COLON, GERMAN

ART UNIT PAPER NUMBER

2879

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/015,626	TAKAHASHI ET AL.	
	Examiner	Art Unit	
	German Colón	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16 is/are allowed.
- 6) ☒ Claim(s) 1,7,9-12,14 and 15 is/are rejected.
- 7) ☒ Claim(s) 2-6,8 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The Amendment, filed on May 02, 2003, has been entered and acknowledged by the Examiner.
2. Addition of claim 16 has been entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for “an auxiliary mask having a number of apertures communicating *individually* with the apertures of the effective portion of the shadow mask”, does not reasonably provide enablement for “the apertures of the auxiliary mask having a minor-axis-direction diameter twice or more as large as the minor-axis-direction diameter of each aperture of the shadow mask, while providing an *individual* communication with the apertures of said shadow mask”. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Claim 15 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for “an auxiliary mask having a number of apertures communicating *individually* with the apertures of the effective portion of the shadow mask”, does not reasonably

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provide enablement for “the bridge portions of the auxiliary mask being located individually on the bridge portions of the shadow mask body as to be shifted in the direction of the minor axis by a margin equal to $\frac{1}{2}$ of the minor-axis-direction space between the electron beam passage apertures of the auxiliary mask, while providing an *individual* communication with the apertures of said shadow mask”. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 7, and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Thoms et al. (US 5,686,784)

Regarding claim 1, Thoms discloses a CRT comprising:

a panel provided with a phosphor screen (see Col. 1, line 19);

an electron gun for emitting an electron beam toward the phosphor screen; and a shadow mask assembly **10** including (see Figs. 5-7) a shadow mask body having a rectangular effective portion opposed to the phosphor screen and formed having a large number of electron beam passage apertures, the effective portion having a major axis and a minor axis passing through the center thereof and extending at right angles to each other,

a mask frame **25** to which the periphery of the shadow mask is fixed and
an auxiliary mask in the form of a strip extending in the direction of the minor axis, fixed to a region containing the minor axis of the effective portion and having a number of electron beam passage apertures communicating individually with the electron beam passage apertures of the effective portion (see Fig. 5).

Regarding claim 7, Thoms discloses said auxiliary mask having a thickness greater than that of the shadow mask body (see Figs. 5-7).

Regarding claim 9, Thoms discloses each electron beam passage aperture of the auxiliary mask **12** having an aperture diameter (see Figs. 6 and 7, edges 44) larger than that of each electron beam aperture of the shadow mask **11** with respect to the direction of the major axis.

Referring to claim 10, Thoms discloses the auxiliary mask **12** (see Fig. 5) being provided on the electron-gun side of the shadow mask body **11**, and the space between the electron beam passage apertures of said auxiliary mask is smaller than the space between the electron beam passage apertures of the shadow mask body with respect to the direction of the minor axis.

Referring to claim 11, Thoms discloses each electron beam passage aperture of the shadow mask body being formed of a larger hole opening on the phosphor-screen side and a smaller hole opening on the electron-gun side, and each electron beam passage aperture of the auxiliary mask being formed of a smaller hole opening on the phosphor-screen side and a larger hole opening on the electron-gun side (see Fig. 6).

Referring to claim 12, Thoms discloses an auxiliary mask **11** being provided on the phosphor-screen side of the shadow mask body, and the space between the electron beam passage apertures of said auxiliary mask is greater than the space between the electron beam

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passage apertures of the shadow mask body 12 with respect to the direction of the minor axis (see Fig. 5).

Allowable Subject Matter

7. Claim 16 is allowed.

8. Claims 2-6, 8 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant argues that the cited reference does not disclose an auxiliary mask arranged in the form of a strip, but that the auxiliary mask seems to have the same shape of said shadow mask.

However, the Examiner notes that a strip is defined as a long narrow piece of material, thus, an auxiliary mask having the same shape of the shadow mask, i.e. extending in a major-axis direction and in a minor-axis direction, has the form of a strip.

Applicant argues that the cited reference does not disclose the apertures of the auxiliary mask communicating individually with the apertures of the effective portion of the shadow mask.

Claim 14 of the instant application is related to an auxiliary mask having an aperture diameter twice or more as large and the diameter of the effective portion of the shadow mask, the minor-axis-direction space between the apertures of the auxiliary mask being twice as long as the minor-axis-direction space between the apertures of the shadow mask, and the bridge portions of the auxiliary mask being superposed individually on the bridge portions of the shadow mask.

Claim 15 of the instant application is related to an auxiliary mask having a minor-axis-direction space between apertures equal to a minor-axis-direction space of the superposed effective portion of the shadow mask, and bridge portions of the auxiliary mask being located individually on the bridge portions of the shadow mask body as to be shifted in the direction of the minor axis by a margin equal to $\frac{1}{2}$ of the minor-axis-direction space between the electron beam passage apertures of the auxiliary mask.

The Examiner notes that it is unclear how the auxiliary mask, having the above configurations, connects with the effective portion of the shadow mask, while the apertures of the auxiliary mask *individually* communicate with the apertures of the shadow mask, as required by claim 1.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to German Colón whose telephone number is 703-305-5987. The examiner can normally be reached on Monday thru Friday, from 8:30 to 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 703-305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


gc


VIP PATEL
PRIMARY EXAMINER